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COLORADO WESTERN STATES SMALL SCHOOLS PROJECT. ANNUAL REPORT, JULY 1, 1963 - JULY 30, 1964.

BY- NACHTIGAL, PAUL M. STENSON, WILBUR L.
COLORADO STATE DEPT. OF EDUCATION, DENVER

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THIS DOCUMENT IS THE ANNUAL REPORT OF THE COLORADO WESTERN STATES SMALL SCHOOLS PROJECT, JULY 1, 1963-JUNE 30, 1964. THE DOCUMENT IDENTIFIES--(1) THE MEMBER SCHOOLS, (2) THE AREAS OF PROGRESS, (3) THE AREAS NEEDING IMPROVEMENT, (4) THE PROGRAMS IN USE, (5) THE FUTURE PROGRAMS, AND (6) THE ANNUAL WORKSHOP MEMBERS. IN ADDITION, THE PARTICIPATING TEACHERS ARE LISTED BY SCHOOL AND THEIR PROJECT ACTIVITY. (JH)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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COLORADO WESTERN STATES SMALL SCHOOLS PROJECT

COLO. STATE DEPT. OF EDUCATION * DENVER
BYRON W. HANSFORD
COMMISSIONER

ANNUAL REPORT

JULY 1, 1963 JUNE 30, 1964

RC 000 903

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COLORADO WESTERN STATES

SMALL

SCHOOLS PROJECT

ANNUAL REPORT
July 1, 1963 - June 30, 1964

Prepared by:
Paul M. Nachtigal
Wilbur L. Stenson
Colorado Western States Small Schools Project
Division of Research & Development

COLORADO STATE DEPARTMENT OF EDUCATION

Office of Instructional Services
Leo P. Black, Assistant Commissioner

Denver, Colorado 80203
September 1964

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ANNUAL REPORT
1963-64
COLORADO WESTERN STATES SMALL SCHOOLS PROJECT

INTRODUCTION

This report is an attempt to indicate the status of the Colorado Western States Small Schools Project at the end of the second year of the three and one-half year grant period. In addition to describing what has happened during the past fiscal year, a number of tentative conclusions concerning the Project and its activities have been included.

PROJECT MEMBERSHIP

Thirty schools were formally participating in Project activities during the 1963-64 school term. These schools served as demonstration centers where "cutting edge" activities were visible. Through spread-of-practice activities, the new techniques were adopted in other school districts.

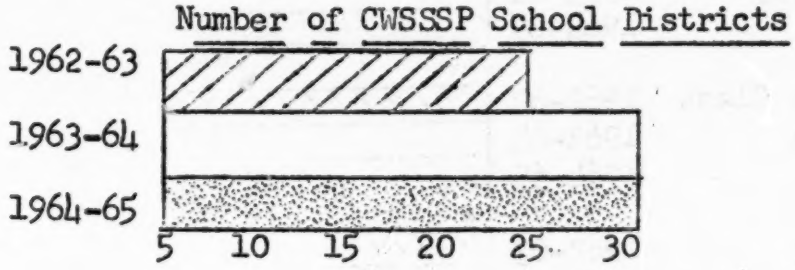
Because of personnel changes and the press of more immediate problems at the district level, it is advantageous to both the schools and the Project to reassess the continuing membership of school districts. Since participation in the WSSSP is voluntary, changes in Project membership in no way reflect on the adequacy of the local school program.

Schools discontinuing Project activities during the spring of 1964 were McClave and Central City.

Schools joining the Project in 1963-64 were: Campo, DeBeque, Haxtun, Kim, Nederland, and Saguache.

New schools for the 1964-65 school term are Ouray, Mancos, and Idaho Springs.

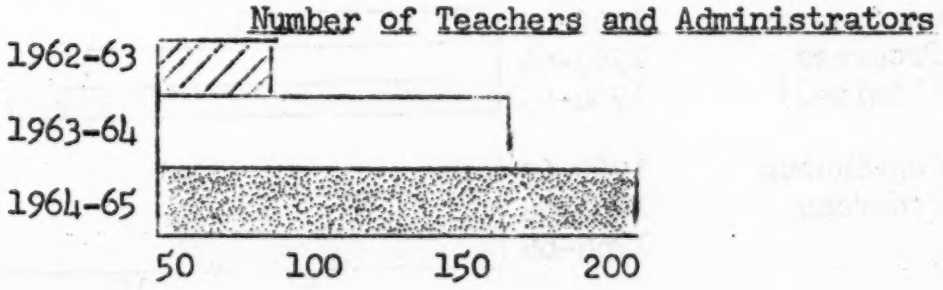
No. 1



The number of teachers participating in Project activities continues to increase. Only as school districts get total or near total participation will they assume the "lighthouse" role of leadership desired in small school instruction.

The following graph indicates the growth of teacher participation during the two years of the Project with an estimate[1] for the coming year.

No. 2



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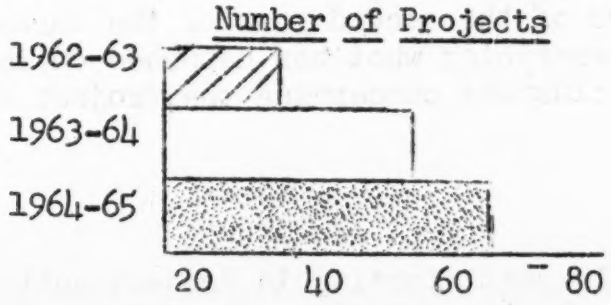
1. Estimates for 1964-65 are made from information contained in proposals received by July 1, 1964.

Participation in Project activities has been voluntary on the part of the individual teacher in the schools. The CWSSSP has attempted to work with individuals or small groups in developing proposals for Project activities as the interest becomes apparent. Chart No. 3 indicates the increase in the number of proposals submitted to the Project office. As school systems approach total involvement by school staffs, it is hoped that proposals might be written for a total school rather than as individual proposals by separate teachers.

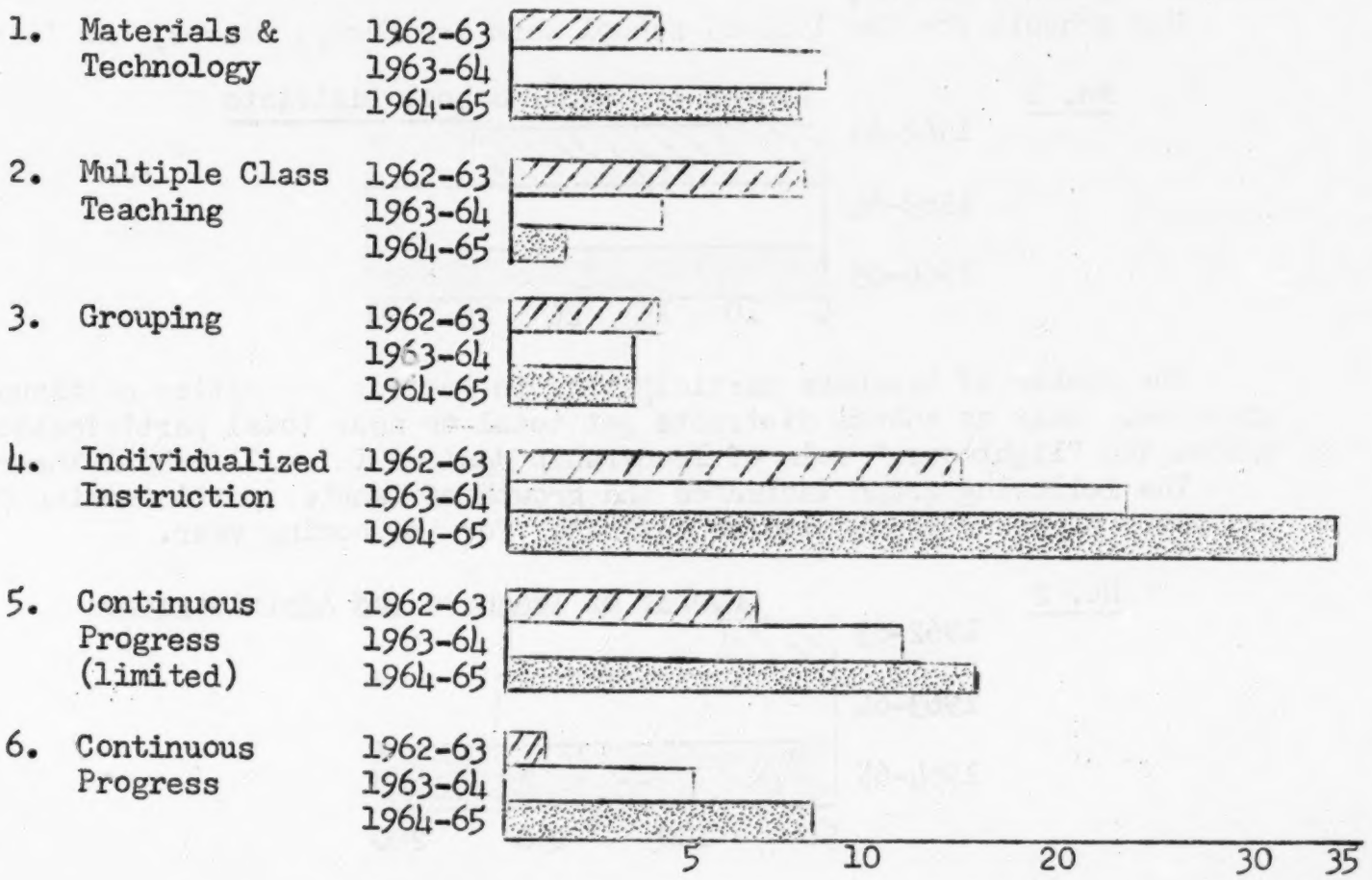
No. 3 Number of Projects



NONGRADED OR CONTINUOUS PROGRESS ACTIVITIES

In evolving and implementing a continuous progress or nongraded program, a number of intermediate steps seem to appear. Chart No. 4 is an attempt to analyze the various types of Project activities, indicating not only the number and kinds of projects but the evolution from the simpler activities of investigating the use of certain materials and technology to the most complex continuous progress school organization.

No. 4 Types of Projects



Definition of Terms

Materials and/or Technology - Exploring new ways of using materials and technology in the classroom to improve and expand learning opportunities.

Multiple Class Teaching - The instruction by one teacher of two or more high school subjects simultaneously in one classroom.

Grouping Procedures - Includes formation of sub-groups within a class or grouping across grade lines in an attempt to meet individual needs.

Individualized Instruction - Provision of suitable learning experiences for each student in a given classroom regardless of ability or interest. (This would include the extensive use of materials and/or technology.)

Continuous Progress - Provision of suitable learning experiences for each student regardless of ability or interest within an organizational structure which allows the student to move vertically through the curriculum at his own uninterrupted pace.

Limited Continuous Progress - Same as Continuous Progress with only one teacher responsible for the vertical progress of the student through more than one grade level.

Conclusions

= From classroom observations, teacher documentations and other written reports, the following indications of progress and areas of need are apparent:

Areas of Progress:

1. A significant number of teachers have been able to break out of the traditional teaching-learning situation.
2. Definite progress has been made in identifying and using materials and technology for individual instruction.
3. Technology (tape recorders, filmstrip projectors, 16mm films, etc.) has played an important role in allowing the teacher to individualize instruction.
4. Progress has been made in identifying and isolating the necessary skills in certain subject matter areas with the development of checklists for recording student progress.
5. New marking and reporting procedures have been developed.

Areas of Need:

1. Most of the work has been done in the areas of mathematics and language arts. There is a need to expand the individualized or nongraded approach to other subject matter areas.
2. The role of the teacher in an individualized-continuous progress organization has not been clearly defined.
3. A definite need exists for additional materials and resources being made available to school districts attempting individualized instruction.

PROGRAMED MATERIALS[1]

Although accurate information is not available on the number and kinds of programs being used, the following general comments may be made.

1. This information is taken from a programed materials usage survey made during the Vail Work Conference, June 7-12.

1. The number and kinds of programs being used have increased significantly during the second year of the Project. This is due to a greater acceptance of programed materials on the part of the teachers as well as the increased availability of suitable programs.
2. There is a greater acceptance of the short unit programs as compared to the longer programs covering a full course.
3. Programed materials have been effectively used for enrichment, regular instruction, and remedial work.
4. Teachers using programed materials have perceived the student reactions to be about the same as their reaction to traditional materials. That is, a majority are interested and react favorably to programed instruction, some students are bored, some students are not interested, etc.
5. Measures of student gain seem to indicate that programed materials produce results comparable to the traditional methods of instruction.
6. Programed materials provide the advantage of allowing students to progress at different rates.

Recommendations for other teachers interested in using programed materials:

1. Determine the consistency of the objectives of the programed materials with those established for the individual students.
2. Take the amount of time necessary to orient students to the philosophy and mechanics of programed materials.
3. Set intermediate goals and establish realistic deadlines for each student working in a program, taking into consideration student interest and ability level.
4. Parents should be kept well informed and oriented to the usage of these new materials.

TEACHER EDUCATION AND IN-SERVICE PROGRAMS

During the '63-64 school term, formal presentations were made by Project personnel at Adams State College and Colorado State College. The equivalent of two full class periods at each college were spent orienting prospective teachers to rural education as it presently exists, presenting information concerning small school improvement activities, and exposing students to new teaching methods and techniques being used in Project schools.

Approximately 360 students who will be doing their student teaching the fall of 1964 were contacted through these presentations. Plans have been made to follow up these presentations by contacting interested students and assigning them to Project schools for their student teaching.

Similar presentations will be made at Western State College, Gunnison; as well as Adams State College, Alamosa; and Colorado State College, Greeley; during the coming school year. The program at this point represents a very limited attempt to orient future teachers for assignments in rural schools. Much additional work is yet to be done.

It is significant, however, that colleges are looking to the Project for new ideas and are anxious to have similar presentations continue to be a part of their teacher education programs.

SCHOOL BOARD INSTITUTES

A special effort was made to include and provide for school board members of Project schools in the regional workshops of the past year. The workshop programs

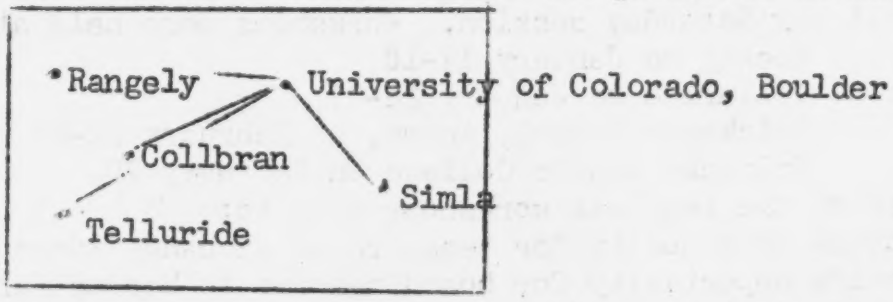
provided an opportunity for board members to become further acquainted with Project activities, provided time for board members to discuss common problems relating to small schools, as well as to discuss their role in supporting small school improvement activities. Consultants assisting in these sessions were:

Dr. Elbie Gann, Assistant Commissioner, State Department of Education
Mr. Frank Anderson, Executive Assistant to the Commissioner, State Department of Education
Dr. Glendon Nimnicht, Director, Experimental Program in Teacher Education, Colorado State College, Greeley.

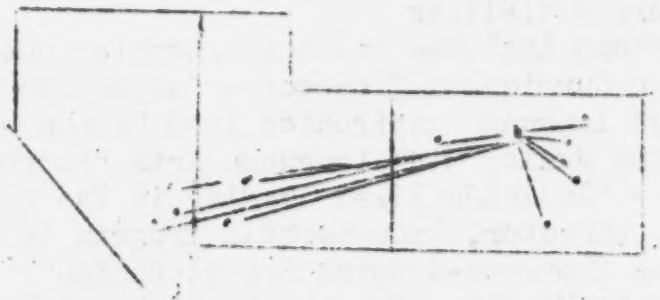
SIGNIFICANT ACTIVITIES

Amplified Telephone - In an attempt to breakdown the isolation and insulation factors of small schools, the Project in cooperation with Mountain States Bell Telephone and colleges and universities of the state, has continued to investigate the feasibility of using the amplified telephone for formal course instruction.

Two projects were completed during the '63-64 school term. A pilot project, originating from the University of Colorado Extension Division, presented a course in college level freshmen sociology to approximately twenty students in Collbran, Simla, Telluride and Rangely. College credit was given for successful completion of the course.



Colorado State College in cooperation with the Western States Small Schools Project, offered an in-service course for teachers who have mentally retarded or slow learners in their classrooms. Approximately one hundred twenty teachers representing eleven schools and three states participated in the amplified telephone course, Special Education 201. This project was used as the basis of a doctoral study.



Aspen - E.F.L. Planning Grant - Although not directly related to the activities of WSSSP, the awarding of a planning grant of $7,900 to Aspen for the purpose of building a prototype small high school is a significant indication of the impact of the Project. This will be a unique opportunity of designing a new building specifically for a continuous progress program. The Project will continue to provide consultative assistance in implementing the instructional program.

Programed Materials Umbrella Project - Twenty teachers representing eleven schools attended the WSSSP Programed Instruction Conference in Albuquerque. This conference represented the formal beginning of the five state "umbrella" project to

investigate the role of the teacher as related to program materials usage. Pre-test information and Teacher Reports, Numbers 1-2-3, have been collected. Approximately four hundred twenty-seven students are enrolled in the classes connected with this project.

Computer Scheduling Project - As a result of the favorable outcome of the Mesquite, Nevada, computer scheduling project, Stanford University has entered into an agreement with the WSSSP to schedule five additional Project schools for the '64-65 school term. Mancos High School was selected from Colorado to work with Stanford in this project.

With the assistance of State Department personnel, the Mancos staff attempted to think through the problems and make the instructional decisions necessary to formulate descriptions of each course offering. Jerry Becker, Consultant, Flexible Scheduling staff, Stanford University, provided assistance in translating this information to the required input format for the computer. The schedule for '64-65 has been processed and appears to meet previous expectations in providing a more flexible program.

CWSSSP Regional Workshops - Four regional workshops were held during the early part of 1964. Three of the workshops were scheduled for Friday evening and Saturday, and one was an all day Saturday session. Workshops were held at:

Meeker on January 17-18
Telluride on January 24-25
Arickaree School, Anton, on February 21-22
Trinidad Junior College on February 29.

The purposes of the regional workshops were to:

1. provide opportunity for teachers to exchange ideas
2. provide opportunity for board members to become further acquainted with Project activities
3. give participants an opportunity to hear from outstanding consultants in small school design
4. provide board members the opportunity to discuss common problems relating to small schools
5. provide an opportunity for the Project office to get feedback concerning past and future activities

The program for the workshops included teacher presentations by:

Ned Morningstar, Aspen Curriculum Director - "Aspen Continuous Progress Plan"
Verl Timm, junior high language instructor from Haxtun - "Individualized Instruction in the Junior High Language Arts Program"
Rhoda Rait, Collbran - "Individualized Reading in the Elementary School"
Dr. Glendon Nimnicht, Director, Experimental Program in Teacher Education, CSC - "Continuous Progress-A Total School Design"
Cliff LeFevre and Gloria Houston, Panguitch, Utah - "Continuous Progress English Language Program" (via amplified telephone).

A total of two hundred participants attended the workshops representing twenty-six schools. Twenty-six of these were administrators, thirty-five board members, and one hundred thirty-nine were teachers.

Annual Summer Workshop - Approximately one hundred fifty teachers, administrators, and consultants were in attendance at the annual summer workshop held at the Lodge At Vail, Vail, Colorado, June 7-12. Twenty-six school districts were represented.

The activities of the week were broken down into large group, small group, and independent activities. The large group sessions included a keynote address, an orientation, briefing sessions, workshop summary, and a banquet. Small groups were organized into work sessions, idea exchange groups, and special project activities. Independent activities included reading, thinking, and writing.

The format for the 1964 Workshop was modified from previous years due to (1) the number of people attending, (2) the diversity of subject matter and grade level interest, (3) the varied length of time of involvement with the Project, and (4) the individual differences of the Project people. The first day's session was structured with each participant being assigned to a specific group activity. Each day's schedule for the remainder of the week was outlined with the assistance of the consultants at an evening planning session using feedback obtained from the day's activities. Resource people to the workshop were:

Out-of-State

Dr. Robert Bush, Professor, School of Education, Stanford University
Dr. Lincoln Hanson, Director, Special Projects, Center for Programed Instruction
Dr. Sidney Rollins, Director, Graduate Studies, Rhode Island College
Mr. Jerry Becker, Consultant, Flexible Scheduling Staff, Stanford University

In-State

Colleges and Universities

Dr. Shelton Chastain, Professor of Education, Adams State College
Mrs. Betty Critchlow, Extension Program Coordinator, Extension Division, University of Colorado
Dr. Herbert Hughes, Associate Professor, Bureau of Research Services, Colorado State College
Dr. Dale Lorimer, Professor of Education, Adams State College
Dr. Glen Nimnicht, Director, Experimental Program in Teacher Education, Colorado State College
Dr. Edwin Randall, Professor of Education, Western State College

State Department of Education

Ralph Bohrson, Coordinator, Western States Small Schools Project
Dorothy Duhon, Consultant, Modern Foreign Languages
Dick Fawley, Section Head, Elementary Education
Byron W. Hansford, Commissioner of Education
Elbie Gann, Assistant Commissioner, Administrative Services
J. W. Rollins, Consultant, Psychometric Services
Joe Struthers, Consultant, Science and Mathematics
Gerald Ulrich, Consultant, Guidance Services

Discussion Leaders - Idea Exchange Sessions

Ann Brgoch, High School Math, LaVeta
Joan Fedel, Business Education, Ridgway
Bernice Hayes, Junior High English, LaVeta
Charles Holmes, Junior High Social Studies, Meeker
Charles Jaquette, High School English, Meeker
Ned Morningstar, Elementary Continuous Progress, Aspen
Marguerite Nichols, Elementary Reading, Collbran
Betty Oba, Elementary Spelling, Meeker
Artie Parr, Elementary Math, Meeker
Sylvia Sardy, Elementary Continuous Progress, Aspen
Walt Stahlecker, High School Science, Mosca.

Amplified Telephone Contacts

Dr. B. Frank Brown, Melbourne High School, Melbourne, Florida
Dr. Edwin Read, Brigham Young University, Provo, Utah
Dr. Henry Pascual, New Mexico State Department of Education
Mr. Blaine Allen, Principal, Mesquite, Nevada

Evaluation - Case Study - The portion of the baseline data information for which Colorado was responsible has been collected and processed. This includes:

1. Student achievement and student ability information for the five states.
2. Descriptive information concerning the school districts. (This portion of the evaluation was carried out by a team of four doctoral students for their dissertation.)
3. Teaching-Learning Process instrument attempting to identify classroom practice.

Publications - Articles published as a result of Project activities were:
"Teaching by Telephone" - Colorado School Journal, February 1964
"The Quiet Revolution" - The Monitor, April 1964
The 16mm sound film documentation, "Paths to Learning-Innovation in the Small School", will be completed and ready for distribution by November 15,1964.
The Project Roster for 1963-64 was compiled and distributed for general information to schools and interested organizations.

Presentations - In addition to making presentations at the National Convention of the Department of Rural Education, and the National Association of School Administrators, the Project was requested to make a report at a group session of the National Conference on the Problems of Rural Youth.

In-state activities have included assisting with professional organizations at the country level, C.E.A. Helpmobile, and pre-school workshops.

Personnel - Mr. Wilbur Stenson was appointed assistant director of the Colorado WSSSP, assuming his duties on January 15, 1964.

A roster of Project personnel including the names of administrators, teachers, and a short description of each Project proposal begins on Page 9.

Summary - The WSSSP appears to have become a focal point of small school improvement activities. This is apparent from (1) the number of requests for information concerning small school improvement from the State of Colorado, other states as well as other countries from around the world, (2) the number of visitors to the Project office as well as to the Project schools of the States, (3) observations while attending national conventions indicate that the Project is one of the few organized attempts to explore some positive solutions to the problems of small schools

It is also evident that because of the five state regional organization of the WSSSP, other agencies and institutions are showing an interest in cooperative efforts that was not apparent when Project activities encompassed only the State of Colorado. Examples of this recognition are: (1) Stanford University's willingness to work with the five states on a computer scheduling program; (2) the willingness of industry (Mountain States Telephone, Westinghouse Electric) to work with the Project on special programs; (3) the encouragement which has been given the Project to pursue the acquisition of U.S. Office of Education funds for further research and development.

COLORADO WESTERN STATES SMALL SCHOOLS PROJECT

Administrative Personnel
1963-64

Arickaree R-2, Anton	Carol Simons, Superintendent
Aspen #1	Earl Kelly, Superintendent
Big Sandy 100-J, Simla	Lionel Robertson, Superintendent
Branson Re-82	Thomas Briggs, Superintendent
Briggsdale #107	Nick Mirich, Superintendent
Campo Re-6	Leland Starbuck, Superintendent
Centennial R-1, San Luis	Silver Jaramillo, Superintendent
Crested Butte H. S.	Anton Christoff, Principal
Gunnison Re-1J	Dr. John Stuart, Superintendent
DeBeque 49 Jt.	Robert Lynch, Superintendent
Eagle County Re-50, Eagle	Art Watson, Superintendent
Eagle Valley H. S., Gypsum	James H. Sindt, Principal
Battle Mountain H. S., Redcliff	Richard E. White, Principal
Gilpin County Re-50, Central City	Ralph Calabrese, Superintendent
Haxtun Re-2J	Buford Plemmons, Superintendent Brad Clark, Principal
Ignacio 11 Jt.	Jack F. Deeds, Superintendent
Kim Re-88	Clifford Butterbaugh, Supt.
LaVeta Re-2	Edwin P. Hildebrand, Supt. Richard Seals, Principal
Lone Star #101, Otis	Philip Pyles, Superintendent
McClave Re-2	James Shoaf, Superintendent
Meeker Re-1	Robert King, Superintendent LaVerne Etter - H.S. Prin. Sam Barone - Jr. H. Prin. Herb Oba - Elementary Prin.
Mountain Valley Re-1, Saguache	Willis Bennett, Superintendent
Nederland Schools	Guy Bennington, Principal
Boulder Valley Re-2	Natt B. Burbank, Superintendent
Plateau Valley #50, Collbran	C. L. Kinney, Superintendent
Rangely Re-4	Bernard F. Yaeger, Supt. Robert T. Wallendorff, Prin.
Ridgway R-2	Victor Lind, Superintendent
Sangre de Cristo Re-22J, Hooper	Harry Morris, Superintendent Walter Stahlecker, Prin. (Mosca) Leland Brubaker, Prin. (Hooper)
Silverton #1	Samuel R. Cummings, Supt.
Telluride R-1	Wesley A. Hall, Superintendent
West Grand 1-J, Kremmling	Bernard A. Kelly, Superintendent
Woodlin R-104, Woodrow	Harold Decker, Superintendent Donald Davis, Principal

ALPHABETICAL LISTING OF PROJECT TEACHERS

A	
Albin, Bertha	Telluride
Anderson, Hulder	Aspen
Anderson, Maxine C.	Ignacio
Arguello, Richard	Branson
B	
Biggs, James	Simla
Boyd, Clarence	Arickaree
Brgoch, Ann	LaVeta
Briggs, Frances	Ignacio
Bright, Bill	Meeker
Brubaker, Leland	Hooper
Brubaker, Molly	Hooper
Bush, Buford	Nederland
C	
Cain, Frances	Simla
Castle, Richard	Meeker
Chiles, Floyd	Mosca
Christiansen, Mrs.	Kremmling
Clark, Brad	Haxtun
Clark, Lois	Aspen
Cochran, Miriam	Nederland
Confer, Mary	Arickaree
Cooley, Carolyn	Meeker
Cox, Dorothy A.	Ignacio
D	
Davis, Moylene	Telluride
Dawson, D. W.	Ridgway
Demuth, Frances	Nederland
Dunn, LaVerle	Telluride
E	
Esarey, Alvina	Simla
F	
Fedel, Joan	Ridgway
Fitzgerald, Loryne	Redcliff
Flaherty, Richard	Meeker
Ford, James M.	LaVeta
Fox, Dixie	Aspen
Franklin, Iris	Meeker
Freeman, Florence	Collbran
Freeman, Lloyd	Collbran
Frost, Mona	Aspen
G	
Garton, Myrtle (Otis)	Lone Star
Gettman, Geraldine	Woodrow
Ghiardi, Constance	LaVeta
Gibbs, Doris	Ridgway
Goodrich, Meridith	Aspen
Graham, Robert E. (Otis)	Lone Star
Grant, Eugenia	Aspen
Greene, Dorothy	Nederland
Grise, Sylvia	Hooper
Grover, Clarence	Arickaree
Gueck, Helen	Haxtun
H	
Hall, Carol	Aspen
Haver, Ruth M.	Saguache
Hawkins, Ernest	Telluride
Hayes, M. Bernice	LaVeta
Haynes, Everly	Telluride
Hazard, Louise S.	Saguache
Head, Louise	Kremmling
Holahan, Margaret	Aspen
Holmes, Charles R.	Meeker
Howell, Eleanor	Ridgway
Hoyer, Constance	Arickaree
Humphries, Eva	Aspen
I	
Irwin, Frank	Meeker
Ivey, Dorothy L.	Rangely
J	
Jaquette, Charles	Meeker
Johnson, Mrs.	Hooper
Johnson, Paul	Silverton
K	
Karas, Junior R.	Woodrow
Kniese, Martha	Arickaree

Kopine, Alice	LaVeta
Kuehlman, Helen	Aspen

L

Lutz, Richard	Kremmling
Lyday, Jayne B.	Ignacio

M

Magnino, Helen F.	LaVeta
Mahaney, Leah	DeBeque
Marietta, Crystal	Meeker
Martin, Ruby	Hooper
Masch, Fay	Branson
McLaughlin, Eleanor	Gypsum
Moore, Bessie L.	LaVeta
Morningstar, Ned	Aspen
Moss, Martha J.	Collbran
Munger, Deane L.	Ridgway
Murphy, Adabel	Simla

N

Nichols, Marguerite	Collbran

O

Oba, Betty	Meeker
Oba, Herbert	Meeker

P

Parr, Artie	Meeker
Patchett, Dale B.	Kim
Paulson, Walter	Mosca
Piper, James	Arickaree
Price, Lucile	Aspen

R

Rait, Rhoda	Collbran
Ratlief, Earl	Simla
Reed, Dan	Arickaree
Richardson, Daisy	Simla
Rowse, Irma	Ignacio
Ruby, Marie	Arickaree

S

Sardy, Sylvia	Aspen
Seals, Richard E.	LaVeta
Seevers, Gladys	Campo
Shaffer, Naida	Arickaree
Smith, William L.	Crested Butte
Somrak, Frances	Crested Butte
Sparn, Susan	Nederland
Spence, Jennie	Meeker
Stahl, Inez	Hooper
Starbuck, Ethel	Meeker
Staude, Walter L.	Woodrow
Steen, Marshall T.	Meeker
Stewart, Marie K.	Saguache
Stout, Mary	Telluride
Swisher, Iris	Nederland

T

Timm, Verl A.	Haxtun

W

Wallendorff, G. Wayne	Redcliff
Wann, Grace	Simla
Watt, Elizabeth	Meeker
Weaver, W. F.	Kim
Whitney, Margery	Collbran
Whyte, Eunice	Simla
Wiabel, John	Hooper
Williams, Melvin	Arickaree
Winchell, Mrs.	Hooper

V

VanderMeer, Francis	Arickaree
Ververs, Lois	Simla

TEACHERS LISTED BY SCHOOLS & PROJECT ACTIVITY

Arickaree, Anton

Confer, Mary - INDIVIDUALIZED READING PROGRAM AS A PART OF A MODIFIED UNGRADED PROGRAM IN ELEMENTARY SCHOOL - The adaptation of materials and techniques to an individualized reading program in the Arickaree Elementary School. This is a step toward continuous progress or a modified grouping program at Arickaree.

Hoyer, Constance - see Mary Confer

Kniese, Martha - A PLAN FOR INDIVIDUAL INSTRUCTION IN ELEMENTARY SCIENTIFIC RESEARCH - A project intended to stimulate interest in scientific knowledge and further research. The materials available cover many fields of scientific interests on all grade levels. Materials include a picture file, filmstrips, and a varied specimen library. Other materials used are reference books, publications, science textbooks, scientific books, and models. Programed materials are used for student self-evaluation of progress.

Reed, Daniel - A PLAN FOR INDIVIDUALIZING AND EVALUATING INSTRUCTION IN INSTRUMENTAL MUSIC THROUGH THE USE OF THE TAPE RECORDER - Each student will advance at his own rate through five levels of instrumental instruction. The student will be released from class periodically to make a tape recording of certain exercises. The instructor evaluates the tape at his convenience and prepares a written evaluation for the student. Student instructors are being used to assist the teacher.

Ruby, Marie - see Mary Confer

Shaffer, Naida - see Mary Confer

VanderMeer, Frances - see Mary Confer

Aspen

Morningstar, Ned M. - Investigator

Anderson, Huldar - CONTINUOUS PROGRESS PLAN WITH INDIVIDUALIZED INSTRUCTION IN THE ELEMENTARY SCHOOL - This plan will be carried out through means of programed materials and other printed and non-textbook materials that can be offered to the students in a manner that permits them to work at their own rate of speed. The teachers, listed below, will concentrate their efforts in the area of mathematics and reading, and to a lesser degree in the area of science and experimenting with discovery units.

Clark, Lois (Mrs.)
Fox, Dixie
Frost, Mona (Mrs.)
Grant, Eugenia
Holahan, Margaret
Humphries, Eva (Mrs.)
Kuehlman, Helen
Price, Lucille
Sardy, Sylvia (Miss)
Hall, Carol

Branson

Arguello, Richard - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN SPANISH THROUGH THE USE OF A LANGUAGE LABORATORY AND PROGRAMED MATERIALS - The class contains both non-Spanish speaking and Spanish speaking students. Significant in this project is the use of teacher-made programed materials to teach vocabulary.

Masch, Fay (Mrs.) - AN INDIVIDUALIZED HIGH SCHOOL ENGLISH PROGRAM - Phonograph records will be used as an audio aid to better reading, and as an aid to the greater enjoyment of literature. The phonograph records may be used at any time by the students.

The records will be used in conjunction with the text. Four developmental sequences of literature have been arranged and catalogued for interested students.

Composition exercises according to methods developed in Project English, have been dittoed for each student--not on an individual basis, but with individuals in mind.

Programed texts will be used in freshman, sophomore and junior classes.

Briggsdale

(No proposal)

Campo

(No proposal)

Centennial, San Luis

(No proposal)

Crested Butte

Smith, William L. - FILM DOCUMENTATION TO ASSIST IN ACHIEVING THE OBJECTIVES OF A PHYSICAL EDUCATION PROGRAM - The documentation of a physical education program for small schools by use of 16 mm film. The film is to be used to disseminate information to other teachers interested in this program.

DeBeque

UNGRADED READING IN GRADES ONE & TWO - An individualized, nongraded approach to the teaching of reading in grades one and two. Materials used include S.R.A. Reading Labs, two sets of basic readers and library materials.

Eagle County Schools, Eagle

McLaughlin, Eleanor D. (Mrs.) - A PLAN FOR INDIVIDUALIZED INSTRUCTION FOR THE SLOW LEARNER IN HIGH SCHOOL ENGLISH - This is a project in English with one instructor responsible for all planning and teaching. The class will have students from all class levels but will be predominately freshmen. In general, they will be slow learners with basic communication difficulties. Individual work will be provided for these students and much of their work will be based on individual goal setting following a conference with each of them. A wide variety of materials will be used and basic English review will be done with programed material.

These students will be urged to do a great deal of reading, an area in which most are weak. Writing will accompany the reading program.

Wallendorff, G. Wayne - AN ATTEMPT TO MAKE THE SCHEDULING OF MATHEMATICS MORE FLEXIBLE IN THE HIGH SCHOOL CURRICULUM - Through the use of programed learning materials, we are going to attempt to offer an appropriate math curriculum to as many students as possible regardless of the period of the day which they have available.

Gilpin County Schools, Central City

(No proposal)

Haxtun

Timm, Verl - A PLAN FOR INDIVIDUALIZED INSTRUCTION IN THE LANGUAGE ARTS THROUGH CORRELATION WITH SOCIAL STUDIES AT THE SEVENTH AND EIGHTH GRADE LEVEL - With ideas uppermost, exploration of the social studies context is made. It is through each student's interpretation of this context that responses are made in the language arts class showing the level of thinking done by each student according to his ability. These thoughts are written up by the students in sentences affording them the opportunity to implement the skills of the language arts that are involved in good writing. Since quite the same process is followed in organizing speeches as in writing sentences it is felt that students also speak as well as they write. After developing writing and speaking skills, the ability to listen and read more effectively will be improved as a result, thus rounding out the development of a language arts program built on each individual student's ability to explore, organize, and transfer thought.

Gueck, Helen (Mrs.) - see Verl Timm

Ignacio

(No proposal)

Kim

Patchett, Dale B. - INDIVIDUALIZING SCIENCE AND MATHEMATICS IN A SMALL HIGH SCHOOL BY COLLEGE AND HIGH SCHOOL COOPERATIVE RESEARCH SEMINARS - This is a seminar in science-mathematics for advanced study in these fields. The seminars will be a joint effort of Kim High School and Trinidad State Junior College.

LaVeta

Brgoch, Ann (Mrs.) - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN FRESHMAN AND SOPHOMORE MATHEMATICS THROUGH THE USE OF PROGRAMED MATERIALS - The sophomores who didn't complete SRA Algebra I will begin where they left off in May, 1963. The three students who finished the ten books in SRA Modern Mathematics Algebra I will take TEMAC Plane Geometry. The students that were in General Mathematics will begin the SRA Modern Mathematics.

The freshmen will be divided into two groups. One group will take modern mathematics and work at their own rate using programed materials. The other group will take general mathematics and will be taught in the traditional method. Filmstrips will be used to supplement both the programed materials and the traditional classroom situation.

Ford, James M. - A PLAN TO COMBINE BOOKKEEPING AND GENERAL BUSINESS IN A SINGLE CLASS PERIOD - This activity will involve the instruction of General Business and Bookkeeping during the same period to a group of junior and senior students. Both groups in this multiple class will be using non-programed instructional materials published by Southwestern Publishing Co. Evaluation will consist of teacher made tests and standardized tests. The proposed duration for this activity will be for the 1963-64 school year.

Ghiardi, Constance - INDIVIDUALIZATION OF INSTRUCTION IN SOPHOMORE ENGLISH THROUGH THE USE OF PROGRAMED AND TEACHER-PREPARED MATERIALS - A plan to individualize the Sophomore English program by grouping students according to their levels of ability and interest in the Language Arts as found through tests and previous knowledge of the students. Large and small group instruction and independent study will be used with programed and other appropriate materials for the study of English.

Hayes, M. Bernice (Mrs.) - A CONTINUED PLAN FOR INDIVIDUALIZING INSTRUCTION IN THE SEVENTH AND EIGHTH GRADE LANGUAGE ARTS PROGRAM AND AN EXTENSION OF THE SAME PLAN INTO THE NINTH GRADE THROUGH THE USE OF PROGRAMED MATERIALS, TEACHER PREPARED MATERIALS AND SMALL GROUP TECHNIQUES - The child is placed at his own level and allowed to proceed at his own rate. The programed materials being used are English 2600, English 3200, Words, Cenco English I and II, Cenco Vocabulary I and II, Lessons for Self-Instruction in Basic Skills Series E-F as are the neo-programed materials SRA Reading Lab IIIA, SRA Spelling Lab IIIA, SRA Organizing and Reporting, SRA Reading for Understanding.

Scholastic Unit Animals and Unit Courage, literature recordings, teacher prepared tapes, a reading project, spelling tapes, and filmstrips are also being used. Each child has a folder in a filing cabinet in which he keeps his materials as well as a diary of work completed.

Kopine, Alice - INDIVIDUALIZING INSTRUCTION IN ELEMENTARY MATHEMATICS - A plan to help each child learn better, make maximum use of his potentialities, increase his own obligation for learning, develop his sense of inquiry and creativity, and improve his effectiveness in thinking creatively. Use of teacher-made basic materials to develop readiness, as we have no kindergarten, will allow a flexible means by which to meet the needs of each child. This will also help develop the major mathematics concepts through child readiness. These concepts will have to be checked daily and developed further if necessary.

Magnino, Helen F. - A PLAN FOR SMALL GROUP INSTRUCTION IN ELEMENTARY SCHOOL MATHEMATICS USING SELECTED AND TEACHER PREPARED MATERIALS - This project involves small flexible groupings of pupils to provide for individual progress. Laidlaw Arithmetic 5 is being used as a basic source for materials to be taught. Teacher prepared programed materials, practice sheets, and tests are being used to supplement the text. All available materials which are suitable for grade five are being used such as Colonial Mathematics Filmstrips, number puzzles, charts, number lines, geometric figures, and measure units for teaching tables of measure.

To evaluate results, use will be made of teacher prepared tests, Laidlaw's Check Up Tests, and Standardized Achievement Tests.

Moore, Bessie L. - A PLAN FOR INDIVIDUALIZED INSTRUCTION IN READING, PHONICS, AND SPELLING - A plan to develop independence, with particular emphasis on teaching pupils how to unlock unfamiliar printed words which they meet in their daily work in reading, phonics, and spelling programs.

Use will be made of reading texts, S.R.A. Reading Labs, The Weekly Reader, Phonics IIIA and IIIB by the Hays Publishing Co., Phonics Materials by Scott Thompson, and Basic Goals in Spelling with enrichment words and individual word lists.

Evaluation of the project will be through the use of Standardized Achievement Tests, Basic Reading Tests by Albert G. Reilly, Weekly Reader Tests, S.R.A. Phonics Survey and Check Tests, and teacher-made tests. These test results will be compared with student test results in the second grade to determine growth rate.

Seal, Richard E. - SUPPLEMENTING A HIGH SCHOOL PHYSICS COURSE WITH HARVEY WHITE PHYSICS FILMS - The Harvey White Physics Films will be used to present those areas of Physics which cannot be adequately presented due to lack of equipment.

Lone Star, Otis

Garton, Myrtle - see Robert Graham

Graham, Robert - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN SECONDARY SCHOOL ENGLISH - A "team teaching" approach to English in grades seven and eight and nine through twelve. An attempt is made to individualize instruction within each of the groups by using conventional materials. Both Graham and Garton are in the class at the same time so that the strengths of each teacher can be utilized to a greater extent.

Meeker Public Schools, Meeker

Bright, Bill - INDIVIDUALIZATION OF ARITHMETIC IN GRADES 4, 5, and 6. The use of the Strathmore Individualized Arithmetic Plan was initiated in the fall of 1962 in an effort to offer each child the chance to work and progress at his own rate rather than being pushed ahead or held back in order to meet the traditional instructional plan.

THE INDIVIDUALIZATION OF THE TEACHING OF SPELLING IN THE ELEMENTARY SCHOOL This is a plan to individualize the learning of spelling, where the child takes a spelling list whenever he is ready for it. He can progress as fast as he is able to, or spend as much time on a list as is necessary for him to master the list.

Cooley, Carolyn - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN JUNIOR HIGH ENGLISH THROUGH THE USE OF PROGRAMED MATERIALS - English instruction in the eighth grade classes was individualized last year by using programed materials. The project is being expanded to include the seventh grade English classes.

Individual goals are set up from achievement scores and pre-tests. Each child is beginning where he is and will go on from there.

Materials for individualizing instruction will include English 2600, English 3200, Encyclopaedia Britannica Filmstrips, SRA Spelling Labs IIC and IIIA, TMI Grolier Self-Tutoring Courses in Spelling and Punctuation, teacher-made tapes and teacher-programed units.

Franklin, Iris (Mrs.) - see Bill Bright

Holmes, Charles R. - AN INDIVIDUAL APPROACH TO EIGHTH GRADE UNITED STATES HISTORY - This project is an attempt to make allowances for individual

differences in the eighth grade U. S. History classes. The course is based on Laidlaw's text, OUR UNITED STATES. As a student shows mastery of a chapter during the week, through a short objective test, he investigates enrichment materials. These enrichment materials are in the form of filmstrips, tapes, records, and picture encyclopaedias. A history paperback library has been added in the classroom to stimulate interest. Equipment has been installed in the classroom in such a manner as to allow several learning activities to take place at the same time without disturbing other students.

This classroom procedure was started at the beginning of the second semester 1962-63 school year.

Jaquette, Charles - A PLAN FOR INDIVIDUALIZING POETRY IN GRADES NINE AND TEN THROUGH THE USE OF A TEACHER-PREPARED SEQUENTIAL PROGRAM - This activity is designed to offer a wider range of sensory experiences in poetry in grades nine and ten than is usually possible. Basic to the poetry unit is a sequence of experiences provided by tapes, filmstrips, anthologies, disc recordings and films. Also sequenced are teacher interviews and lectures. The sequence is designed to "branch" students into various levels of interest and difficulty.

Irwin, Frank W. - see Bill Bright

Marietta, Crystal - see Carolyn Cooley

Oba, Betty (Mrs.) - A PLAN FOR USING THE TAPE RECORDER IN 4TH GRADE INDIVIDUAL OR GROUP READING INSTRUCTION - Groups and individuals in the classroom will use some taped presentations of basic reader material as a substitute for direct teacher presentation. Material to be used will be mostly teacher-recorded, except for the use of some available phonics material. The classroom is equipped with tape recorder and earphones for use in this project.

Starbuck, Ethel (Mrs.) - INVESTIGATION OF EFFICIENCY OF VARIOUS SHORTHAND MATERIALS - An investigation to determine whether higher shorthand speeds are achieved by the students in the one-year shorthand course at Meeker High School through the use of Diamond Jubilee Gregg Shorthand or through the use of Simplified Gregg Shorthand.

Steen, Marshall - SMALL SCHOOL USE OF HARVEY WHITE PHYSICS FILMS FOR STUDENTS WITH SCHEDULING DIFFICULTIES - Because of scheduling difficulties, it was necessary to schedule four classes of physics. Of the fourteen students wishing to take physics, seven of these were scheduled in one period which is taught in the conventional way. The remaining seven are taking Physics during three other periods of the day. These students use the school dark room and show the films on a side-viewing movie projector. Film manuals are provided for each of them to work in. Films and manuals are obtained through the Colorado Western States Small Schools Project.

Watt, Elizabeth (Mrs.) - see Bill Bright

<u>Mountain Valley</u>, <u>Saguache</u>

Haver, Ruth M. - A PLAN FOR IMPROVEMENT OF READING ACHIEVEMENT IN GRADES 7 & 8- By reorganizing classroom procedure and subject matter, the plan aims to improve all phases of reading abilities for superior 7th and 8th grade

students, to provide motivation for individual progress, and to allow for teacher time for individual assistance.

Hazard, Louise S. (Mrs.) - A PLAN FOR MULTIPLE TEACHING IN ENGLISH IV TO MEET INDIVIDUAL NEEDS - This course is an attempt to meet the needs of students who are college bound and of students who are completing their formal education. Some need practice in creative writing such as will be demanded in college. Others have problems of grammar in letter writing, speaking, and in exposition such as explanations or essay questions on tests. Two students have schedule conflicts and wish to study English at a period other than the regular one. All of these are seniors but they have varying abilities and different needs. This project is an attempt to help each achieve his goal.

Stewart, Marie K. (Mrs.) - A PLAN FOR OFFERING A BROADER PROGRAM AND IMPROVED TRAINING FOR STUDENTS PURSUING BUSINESS SUBJECTS AND THE USE OF PROGRAMED MATERIAL IN THE TEACHING OF BUSINESS MATHEMATICS - Multiple classes in business are offered four periods a day; students were invited to register for Typing I, Typing II, bookkeeping, and business math at their convenience. Shorthand (usually alternated with bookkeeping) was offered the first hour, which ordinarily is a study period for students not enrolled in band and chorus. Programed material in business mathematics (by Gregg Publishing Company) and the Gregg Typing 191 Series texts and working papers will be used in this project. A former business teacher will assist with checking papers and record keeping.

<u>Nederland</u>

Bush, Buford - A PLAN FOR IMPROVING READING INSTRUCTION IN INTERMEDIATE GRADES THROUGH GROUPING FOR NEEDS, REDUCTION OF RANGE, USE OF VARIED MATERIALS AND TECHNIQUES TO FIT INDIVIDUAL NEEDS - Students in the upper elementary grades will be grouped according to reading levels based upon results of the fall testing with Iowa Tests of Basic Skills. Possibly six groupings will be made which will be distributed in two contrasting levels within each of the three rooms. A three-year tentative plan will be followed which will include materials, techniques, and sequential skills geared to the needs of each group. Students will be retested at the end of the year to determine growth and to evaluate the program. Groupings will be flexible and students should be shifted to other groups if need arises. It is hoped that reduction of teaching range for each teacher and specific planning geared to the needs of each group will result in more efficient reading skills, better application to other study areas and development of more varied reading interests for more students.

Cochran, Miriam (Mrs.) - A PLAN FOR INDIVIDUALIZING SECONDARY INSTRUCTION IN BOTH GRAMMAR AND LITERATURE BY THE USE OF PROGRAMED MATERIALS AND AUDIO-VISUAL MATERIALS - The English materials are divided into categories; essay, drama, short story, novel, outline, oral work and grammar review. There is a minimum requirement established for each category and an established system of bringing grades to an A level; this includes written, oral, and taped reports of literature and also creative work in these fields. The earphones will be used during class periods to give opportunities to each student to listen to artistic productions of great literature "in privacy". There are enough records and tapes to suit all tastes. Twenty minutes of each period is teacher-centered by lecture, reading and discussion, the remainder is student-centered. This gives

thirty minutes for attention to student problems in writing, grammar, and literature selection. Vocabulary words are mostly taken from context during the lecture period. Weekly tests include these and "thinking" questions over their notes from the lectures.

Demuth, Frances (Mrs.) - see Buford Bush

Greene, Dorothy (Mrs.) - see Buford Bush

Sparn, Suzanne (Miss) - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN SECONDARY SCHOOL MATHEMATICS THROUGH USE OF SELECTED AND TEACHER PREPARED PROGRAMED MATERIALS - Using programed materials will allow each student to work at his own speed and on whatever course he may be taking. They will be tested after covering a specific amount of work, and also at the quarter and semester. Some time each week will be used in lecture or class work covering something general.

Swisher, Iris (Mrs.) - see Buford Bush

Plateau Valley, Collbran

Freeman, Florence (Mrs.) - INDIVIDUALIZED INSTRUCTION IN FOURTH GRADE READING The individualized reading program is based on these ideas: self-instruction, self-selection and pacing. The child has a natural desire to read, select books that he can read and wants to read, and proceeds through each book at his own rate, not being pushed ahead or held back by other members of his class.

Each child has an individual conference with his teacher every three or four days. The pupil reads aloud a passage he has prepared and discusses the entire book with the teacher. The teacher keeps a record of the number and type of books read by the pupil, his observed skills in which he needs help, and his general progress in reading ability. Temporary groups may be formed for instruction in a particular skill if the teacher notes that several children have the same skill needs.

Nichols, Marguerite - A PLAN FOR INDIVIDUALIZED READING THROUGH THE USE OF INDIVIDUALIZED READING MATERIALS - The individualized reading program is being planned because of the need to satisfy reading interests and abilities. It will help build reading and phonetic skills on a progressively higher program and also permit reading to be used as a tool in other areas. The literary program will be varied and well-balanced. The children will be motivated to read materials of interest to them and which have been selected by them. They will be encouraged to read at their own rate and work as individuals. Each child will have the entire reading period for reading and reading activities; such as work sheets and reports to the teacher or class. Teachers can spend much more time giving individual help to each child.

For this project there are many basic readers, trade books, workbooks, work sheets, phonics tests, Weekly Readers and S.R.A. materials available. Reading abilities will be determined by tests and S.R.A. scores and children's reading materials will be provided at various levels. All reading activities will be checked often by the teacher.

Rait, Rhoda (Mrs.) - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN READING FOR FIFTH GRADE THROUGH THE USE OF MANY AND VARIED MATERIALS - Materials available for the project will be SRA Reading Lab IIB, Reading for Understanding Lab,

trade books, and basal readers of various grade levels. Teacher-made check sheets, mimeographed workbook sheets, and other diagnostic tests will be used.

Reading is taught with materials which children may choose to read. This means books of many types, many subjects, and on many levels of difficulty are available in the classroom.

This method meets the individual needs of the students and does away with ability grouping. Groups, if organized, are temporary and based on interests, sociometric grouping, or sharing. Daily reading periods permit each child to read during the entire reading time, silently except when reading to teacher or audience, and allow one day per week for preparation of sharing activities. Teacher is permitted to work almost entirely with individuals.

Whitney, Margery (Mrs.) - A PLAN FOR INDIVIDUALIZED INSTRUCTION IN SEVENTH & EIGHTH GRADE ARITHMETIC - Because all levels of interest and achievement are grouped together in one class at Plateau Valley Schools, individual instruction should be given each child to increase student achievement and interest.

The class will be divided into ability groups, those in the top group will be allowed to progress at their own rate with individual instruction.

The work will be evaluated by both the student and the teacher. The student will be allowed to advance at his own rate.

Rangely

Ivey, Dorothy L. - NONGRADED ENGLISH PROGRAM - The nongraded English program was initiated to breakdown the traditional lockstep instructional pattern, meet the needs of all students, and provide a logical, sequential program of instruction, grades nine through twelve.

Criteria for grouping students include STEP reading and writing scores, semester grades in English and teacher recommendations.

Wallendorff, Robert T. - STUDENT INTEREST DAY - An organization and scheduling plan which places the responsibility for independent study upon the student. Provides opportunity for remedial instruction and enables the student to devote more time to his areas of interest. Presently the program provides one half day per week for the pursuit of individual study.

Ridgway

Dawson, D. W. - MULTIPLE CLASS IN AMERICAN HISTORY AND AMERICAN GOVERNMENT The class is designed to give a broader background in history and government for all students than could be offered with a traditional schedule. The two classes will be combined for study of common areas such as the Constitution, history of government, etc.

Fedel, Joan - SELF EVALUATION IN TYPEWRITING IN A MULTIPLE CLASS SITUATION PROVIDING INDIVIDUALIZED INSTRUCTION - A plan to work with typewriting students on three definite levels--those who have had a short eighth grade typing course and are now taking Typing I, those in Typing I with no previous typing experience, and those taking Typing II. The project allows for individual progress for all students by using instructional sheets to accompany the texts and the tape recorder for all timings. It also emphasizes goal-setting and self-evaluation by the learners.

Gibbs, Doris - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN JUNIOR HIGH MATHEMATICS THRCUGH THE USE OF MULTI-LEVEL TEXTBOOKS - A continuation of a plan to give individualized instruction in junior high math, a "project" day for each student will supplement the program. This day will be used in investigating new phases of math, trying ideas for projects, working with math puzzles, recreational problems, etc. The purposes at this time will be to broaden the learning of the accelerated student and motivate the slow learner.

It is hoped that this class will build a much better math foundation for students entering college as well as for those who will use math only in daily living.

Howell, Eleanor (Mrs.) - A PLAN FOR TEACHING A MULTIPLE CLASS IN SPEECH AND DRAMA - Through sequenced sensory experiences provided by means of tapes, disc recordings and lectures, students are guided through study units in thinking, reading, listening, writing, acting, and speaking. Teacher-student conferences assist in coaching student's efforts and evaluating progress.

Munger, Deane - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN BIOLOGY THROUGH STUDENT INITIATED EXPERIMENTS - Students are guided to the investigation of several basic research efforts in the life sciences. Each student must display some degree of proficiency in observing, interpreting, drawing valid conclusions and evaluating his own and others investigations. Several unique concept testing devices have been developed by the teacher for the purpose of determining growth and need.

Sangre de Cristo, Hooper & Mosca

Brubaker, Leland - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN AN ELEMENTARY ARITHMETIC PROGRAM THROUGH GROUPING FOUR GRADES - In the small school there is a need for grouping to improve individualization of instruction. The pupil who is a rapid learner should work at his speed and level of achievement. The pupil who is a slower learner should work at his speed and level of achievement. By grouping the fifth, sixth, seventh and eighth grades on levels of achievement in arithmetic the teachers hope to improve the achievement of the pupils.

Brubaker, Molly (Mrs.) - see Leland Brubaker

Martin, Ruby (Mrs.) - see Leland Brubaker

Paulson, Walter - A PLAN FOR DEVELOPING AND INCREASING THE INDUSTRIAL SKILLS OF STUDENTS THROUGH THE SMALL SCHOOL SHOP PROGRAM - Students in the shop program have the opportunity to plan and have first hand experiences in plumbing, heating, painting, electrical work, roofing, framing, concrete work and insulating. Evaluation will be done by an advisory group composed of the teacher, school officials, and local contractors on the basis of materials available and quality of work accomplished.

Stahl, Inez (Mrs.) - TEACHING MUSIC APPRECIATION IN THE FIRST GRADE, USING TECHNOLOGICAL DEVICES - This project encompasses a variety of music appreciation activities in the first grade. Through the use of records, taped instructions and sequenced graphic materials, the teaching of music is correlated with other major teaching units.

THE EXTENSIVE USE OF AUDIO-VISUAL MATERIALS IN A SELF-CONTAINED FIRST GRADE CLASSROOM - Through the use of tapes and correlated and carefully sequenced graphics, Mrs. Stahl is attempting to teach the major concepts in Health, Social Studies, Reading and Phonics.

Wiabel, John - see Leland Brubaker

Silverton

(No proposal)

Simla

Cain, Frances (Mrs.) - A CONTINUOUS GROWTH READING PROGRAM FOR THE ELEMENTARY SCHOOL - The reading program will be individualized to allow each student maximum opportunity to work and progress at his own rate. SRA Reading Laboratories, basic readers, and supplementary reading materials are planned to be used by Mrs. Cain and the following teachers:

Esarey, Alvina (Mrs.)
Murphy, Adabel (Mrs.)
Ratlief, Earl
Richardson, Daisy (Mrs.)
Ververs, Lois (Mrs.)
Wann, Grace (Mrs.)

Whyte, Eunice K. (Mrs.) - A PLAN FOR INDIVIDUALIZING INSTRUCTION IN HIGH SCHOOL MATHEMATICS THROUGH THE USE OF PROGRAMED MATERIALS - This project is designed to offer opportunities for students whose individual requirements are not met in the scheduled school program.

Programed materials in Algebra I (TMI) and in Plane Geometry (TEMAC) slides for overhead projector developed under RMAP, and teacher-devised materials are to be used to implement the project, under which individuals assume responsibility for their progress.

Telluride

Dunn, Rodger - A PLAN FOR UNGRADING THE 7TH AND 8TH GRADE ENGLISH PROGRAM - Through the use of programed materials and other printed and non-book materials, the areas of grammar, composition, reading, spelling and speech are non-graded. Evaluation of this year's experiences will assist in determining how best to extend the present non-graded elementary program into the junior high school.

Hall, Wesley - THE TELLURIDE NONGRADED ELEMENTARY SCHOOL - This project begins its third year with a continuation of the nongraded programs in the area of reading and mathematics. This is a total staff effort, kindergarten through grade six.

West Grand, Kremmling

Head, Louise - see Bernard Kelly

Kelly, Bernard - UNGRADING THE HIGH SCHOOL ENGLISH PROGRAM - Through the pre-evaluation of students by means of standardized reading and grammar tests, previous grade averages and anedoctal analyses, initial groups of all high school English students were formed. Student grouping is flexible and is adjusted according to the results of frequent evaluation. Five ability-achievement levels replace four former grade levels. Programed materials, English 2600 & 3200 are being used.

Lutz, Richard - see Bernard Kelly

Woodlin, Woodrow

Gettman, Geraldine (Mrs.) - THE USE OF EDUCATIONAL TECHNOLOGY IN THE SECOND GRADE - Through the use of the tape recorder, this teacher may be freed to teach two reading groups at the same time. Pre-taped reading lessons are used by pupils for purposes of introducing each new lesson or story. By making effective use of the tape recorder, this teacher is able to spend more time in individual and small group instruction.

Karas, J. F. - A PLAN FOR A HIGH SCHOOL MUSIC CLASS DESIGNED TO BROADEN MUSIC HORIZONS WITHIN A LIMITED TIME SCHEDULE - This curriculum offering is designed to make available to all high school pupils experiences in music appreciation and understanding. The overhead projector, tapes, and discs are extensively used. Teacher made sequential materials are being produced.

Staude, Walter L. - THE USE OF PROGRAMED MATERIAL IN THE MULTIPLE CLASS SITUATION - Two classes will be involved in the project--a combined Algebra I and general math class and a combined Algebra I, Algebra II, and modern math class. In the first class the Algebra I students will be taught the traditional method, and the general math students will be using programed materials. The Algebra II students will be taught traditionally, and the Algebra I and modern math students will make use of programed materials in the second class. Programed materials will enable the school to extend its curriculum so that all students wanting to take math can work it into their schedules.

YOUTH SEMINAR PROGRAMS

San Luis Valley Youth Seminar

Coordinator: Walter Stahlecker
Participating Schools:

Sangre de Cristo H.S., Mosca
Centennial H. S., San Luis
Creede H.S., Creede
Manassa H.S., Manassa
Saguache H.S., Saguache

The seminar meetings, which are held on the Adams State College campus, are concerned with delving more deeply into a subject matter area such as social studies, music, history, etc. than is done in the high school classroom. The objectives of the seminar are: (a) to introduce student to a college campus and its professors, (b) give the students a perspective of the various fields of endeavor to aid them in their future planning, and (c) to give the students from the participating schools an opportunity to meet on an academic basis rather than only in athletic competition.

Simla Seminar

Coordinator: James Biggs
Participating School: Simla

"Great American Authors" - Approximately fifteen junior and senior students meet two nights a month to discuss selected American authors. An outside speaker presents at one of the sessions, the other session is devoted to small group discussions.

Washington - Yuma County Seminar

Coordinator: Carol Simons
Participating Schools:

Idalia H.S., Idalia
Arickaree H.S., Anton
Liberty-Joes H.S., Joes
Lone Star H.S., Otis
Otis H.S., Otis
Woodlin H.S., Woodrow

The purpose of this seminar is to broaden the experiences of the academically able and ambitious students. The seminar has no central theme. Some of the programs have been a "TeleLecture" from the United Nations; attendance at the Drama Workshop; Colorado State College, Greeley; concerts in Denver; and lectures given on philosophy of science and creative arts.

Advanced Study Program - Amplified Telephone

Soc. III-3 "Introduction to Sociology"

Coordinating Agency: Colorado Western States Small Schools Project, Department of Education

Participating Institutions:

University of Colorado, Extension Division, Boulder
Plateau Valley High School - Collbran
Rangely High School - Rangely
Simla High School - Simla
Telluride High School - Telluride

Instructor:

Dr. Gordon Barker, Professor of Sociology, University of Colorado

Project Personnel:

James Robothem - Collbran
Robert Wallendorff - Rangely
Eloice Miller - Simla
Tom Ward - Telluride

Approximately twenty-five able and ambitious high school juniors and seniors will be taking a college level sociology course via amplified telephone, using modified correspondence study materials.

Objectives of the proposal are:

1. provide advanced study opportunities for able and ambitious youth in small schools
2. provide an opportunity for these students to share a common learning experience and discuss problem with students of like interest regardless of geographic location
3. assist students in bridging the gap between the small high school experiences and those which will be met in starting a college career

Duration of Project:

February 10, 1964 - May 15, 1964

DCCUMENTATION ABSTRACTS

(Copies of the following documentations may be obtained by writing to: Paul Nachtigal, Director, Colorado Western States Small Schools Project, 535 State Office Building, Denver, Colorado, 80203)

Amplified Telephone

THE TELEPHONE METHOD OF TEACHING - Tom Beattie and Paul Frick, Telluride, Colorado; 1963. 21 pp.

Purpose:

1. To test the feasibility of using the long distance telephone to bring outstanding teachers to the small high school classroom.
2. To test several new telephone devices designed to improve the transmitting of the human voice to groups of listeners and allow for two way communication.

Procedure:

Five rural schools in Colorado: Telluride, Silverton, Collbran, Rangely, and Meeker, participated in this demonstration which consisted of a series of social studies presentations originating from Western State College in Gunnison. The CWSSSP, State Department of Education, provided the coordination for the project. Personnel from Mountain States Bell System provided technical assistance.

Results:

1. The amplified telephone has a unique advantage over other media, in that it permits two way communication.
2. Sharing of information on a multi-school basis can be motivating to students that participate.
3. Schools interested in providing additional experiences for their students could feasibly capitalize on amplified telephone equipment and techniques.

Elementary School - Continuous Progress

ASPEN CONTINUOUS PROGRESS PLAN - Ned Morningstar, Aspen, Colorado; 1964

Purpose:

To initiate a continuous progress plan by means of individualizing instruction in the elementary school. The plan was designed to concentrate in the areas of reading and mathematics, although the teachers were encouraged to experiment in other subject areas as well.

Procedure:

Children were grouped chronologically and heterogeneously. A variety of materials were made available to the teacher of any given group so that an individualized program could be provided for each student regardless of ability.

Conferences with parents and reports were scheduled every nine weeks. At the first and last conference, parents were shown an achievement and progress report. The other two reporting periods the parents received only a progress report. Achievement reports were filled in as bar graphs, indicating the level of achievement. Classroom marking was limited to satisfactory or unsatisfactory, or to percentiles of accomplishment, in terms of the students' ability.

Records and materials for each child were forwarded to the teachers of the next level at the end of the year.

Frequent faculty meetings were held and many changes in forms, procedures and methods were made during the course of the year. Teacher aides were employed to assist with many of the clerical tasks.

Results:

1. The younger the student, the more readily he adjusts to the continuous progress program.
2. The slower and faster student seem to profit most by the individualized instruction.
3. There are occasional students, as with the previous system, who are difficult to motivate because of personal problems.
4. In some cases, where the classes were unusually large (well over thirty) test results in reading indicate greater gains in vocabulary than in comprehension. In mathematics, indications are that greater gains were made in reasoning and concepts than in computation. (This observation would indicate a need for increased drill in arithmetic and more checking of comprehension in reading.)
5. A sequential checklist of materials completed by level in the areas of reading, mathematics, and spelling has been compiled by the teachers.
6. Record keeping becomes a tremendous job and teachers need assistance, if the group is over twenty-five in size.
7. Accurate records of each child's progress and achievement are vital for keeping track of his individual program, reporting to parents, and providing information for the teacher of the next level.
8. Teachers discovered that they could individualize in other areas: spelling, grammar, social studies, and science. This work has not been extensive enough to evaluate at this time.
9. Parent reaction to the program was favorable.

TELLURIDE NONGRADED ELEMENTARY SCHOOL - Paul Frick, Telluride, Colorado; 1963. 25 pp.

Purpose:

To provide an organizational structure capable of accommodating individual difference.

Procedure:

After reviewing the available publications, visiting nongraded schools, and consulting with specialists in the field, Telluride Elementary School began in 1961 to break down the traditional grade levels.

Grades were replaced by levels in the various subject areas. The levels were then gradually eliminated. Students were grouped by ability in math and reading. Heterogeneous groups were used in other subject areas.

Results:

Recommendations at the end of two years of operation point out the need for continual evaluation and modification of certain aspects of the program even though there is general satisfaction with the nongraded structure.

Language Arts - English Language

AN INDIVIDUALIZED ENGLISH PROGRAM FOR HIGH SCHOOL FRESHMEN AND SOPHOMORES - Charles Jaquette, Meeker, Colorado; 1964. 9 pp.

Purpose:

To attempt to discover the problems and successes which would be experienced under complete individualization of the high school freshmen and sophomore English program.

Procedure:

English I and II students were integrated into common classes. Age levels were irrelevant since students were working on an individual basis.

Assignments dealt with four main areas of English study: reading, writing, speaking and listening. Assignments were identified by the student, the teacher, or jointly. Each student worked on his own assignment at his own speed. They did not work in the same areas at the same time, except coincidentally.

Large group instruction was held for discussion of common problems, to introduce new material, and to motivate the students. Reading materials, recordings, filmstrips, programed materials, other library resources, tape recorders, record players, headsets, and projectors were available to the eighty students of this program so they could work independently.

Results:

1. Accomplishments of the faster students were satisfying in amount and quality. The average student achievements were acceptable by quantitative standards. In isolated cases, improvement could be observed among slower students.
2. Students improved in their ability to create their own projects.
3. Ability of students to accept responsibility for their behavior varied widely.
4. Classroom organization was the least successful aspect of the experiment. Students had a lost feeling about what their overall purposes were.

ENGLISH PRACTICE UTILIZING PROGRAMED TYPE MATERIALS - Crystal Marietta, Meeker, Colorado; 1963. 17 pp. SUPPLEMENTAL STUDY OF INDIVIDUALIZED ENGLISH INSTRUCTION UTILIZING PROGRAMED MATERIALS - Carolyn Cooley and Crystal Marietta, Meeker, Colorado; 1964. 14 pp.

Purpose:

1. To encourage each child to set goals for himself and to achieve those goals.
2. To give each child adequate practice in the areas in which he needs help.
3. To enable each child to achieve at his own pace.
4. To give a child individual help and attention when he needs it.
5. To build better study habits.
6. To encourage each child in his achievement by using programed materials which provide immediate knowledge of results.
7. To collect, write, and file the necessary materials to achieve the first six objectives.

Procedure:

To determine the areas in which individual children needed instruction, Iowa Tests of Basic Skills, Clapp-Young English Tests, teacher observation, and pretests for English 2600 were used. Results of these tests and observations were analyzed by the pupil and teacher together.

A child was then placed in a unit of work to fit his needs and abilities. Upon completion of a unit, the child took a test to evaluate his achievement. These tests were corrected by teacher and student together so that necessary corrections could be made at that time. If a child was still lacking in a skill, he was referred to further practice materials for reinforcement.

Work in this class was done on a large group basis for certain skills such as usage where there was an indicated need by all students; on a small group basis for some students that needed work on beginning grammar; and on an individual basis such as taping talks, working in programed materials, or viewing filmstrips.

Each child kept a work and response sheet folder. This was helpful to both the teacher and student in determining progress and remedial areas.

During 1963-64, this project was expanded to include the seventh grade English classes. Two teachers worked together setting up projects and materials, making a continuous program in junior high English.

Results:

1. The children did help set up their goals.
2. A student would briefly review areas which he already knew and then go on to another area.
3. Individualization enabled each student to achieve at his own pace.
4. Individual help was almost always given when a child needed it.
5. Better study habits were achieved.
6. Very few students voiced any derogatory remarks about the use of programed materials and working individually.
7. Collecting, writing, and filing necessary materials were time consuming and often frustrating to the teacher.

INDIVIDUALIZED INSTRUCTION - JUNIOR HIGH LANGUAGE ARTS - Bernice Hayes, LaVeta, Colorado; 1963. 18 pp.

Purpose:

To free the students to learn by removing the following restrictions:

a. too closely graded subject matter
b. the use of a single text as the curriculum
c. too much concern for group achievement instead of concern for individual achievement.

Procedure:

The Metropolitan Achievement Test, Form A, was given to the students at the beginning of the school year to indicate each child's knowledge in reading, spelling, language, and vocabulary. Form B of the same test was given at the end of the year to indicate each child's progress.

Materials used for this project were English 2600, Organizing and Reporting Skills Lab, SRA Reading Lab IIIa, SRA Spelling Lab IIIa, SRA Reading for Understanding Lab, Scholastic Literature Unit on Animals, a series of six filmstrips entitled Coach for Good English, a series of twenty-four filmstrips called Special Language Arts, Cenco World I and II, Cenco English I and II, recordings, teacher-prepared reading program, and various textbooks and workbooks.

Each child was placed at his own level and was allowed to proceed at his own rate.

Students reviewed written work using a brief checklist of common errors. The errors in these compositions were then used as the basis for further work in grammar, spelling, etc. A filing cabinet which had been sectioned with the symbols used on the checklist was a source of materials for drill to correct a particular mistake.

Results:

1. The boredom for the more able was alleviated.
2. Pressure on the slower students was no longer a problem.
3. The better students were motivated to do more work.
4. Average students learn more through individualized instruction.
5. Not all slower students benefited from this method.
6. Mental attitude toward the school of some below average students improved.
7. Weaknesses were noted in the areas of spelling and vocabulary.

INDIVIDUALIZED INSTRUCTION IN JUNIOR HIGH LANGUAGE ARTS AREAS - Verl Timm, Haxtun, Colorado; 1964. 19 pp.

Purpose:

1. To individualize the junior high language arts program according to the needs and abilities of the students.
2. To improve the ability of students to transfer thought through the language arts channels of reading, writing, listening, and speaking, with continual emphasis on vocabulary development.

Procedure:

Through each student's written and oral interpretation of content in his school work and in experiences outside the school, an indication of each individual's level of development and areas of need were established. Suitable learning activities tailored to the individual needs were made available. The student's work was completely individualized and checklists were used to record their progress. Achievement tests were given at the beginning, middle, and end of the school year.

Results:

1. Students were pleased and satisfied with their progress.
2. Insufficient evidence is available to conclude that more or less knowledge was gained than would have been in another situation.
3. The general opinion of all students was that they could go at their own speed, and that they were learning for learning's sake and not for a grade.
4. Parents were involved and keenly interested.
5. The teacher's emphasis was on the assistance that could be given each student to do a better job with their language skills.

INDIVIDUALIZING THE TEACHING OF LYRIC POETRY - Charles Jaquette, Meeker, Colorado; 1963. 20 pp.

Purpose:

1. To provide for individual student differences in the lock-step English programs now prevalent in most high schools.
2. To challenge the able and ambitious student to the fullest of their capabilities and at the same time meet the needs of the slower students.
3. To give consideration to the wide interests and abilities of the students by presenting lyric poetry which varied widely in type and difficulty.

Procedure:

This experimental poetry program, designed to be self-teaching, consisted of two main parts: (1) a core series of twenty-four taped poetry discussions and (2) activities branching from the core discussions.

Each student was given a master sheet listing all the core discussions and summaries of the branching activities. The student and the teacher then slected the appropriate discussions geared to the student's ability and interest.

A number of tape recorders, record players, and a language lab with its five tape decks and console, allowed each student to proceed at his own rate. Each tape had an accompanying test. On Friday, the student had the option of choosing which tests, if any, he would take covering material completed during the past week.

Results:

The degree to which a student is able to understand and enjoy poetry is difficult to measure except in a highly subjective manner. The following negative results were apparent:

1. Branching activities were not done with the expected thoroughness or enthusiasm. Some students did no branching activities, others who did, did rather cursory jobs for the most part.
2. Not enough time was spent in individual conference. It was impossible to confer with students while lectures were being carried on in the traditional classroom and time remaining wasn't sufficient.
3. On a test given to all students in the sophomore class including both experimental and control groups, the performance of the experimental group, subjectively gauged, was perceptibly lower.

The following indicate the positive results:
1. The students performed well on the core tapes themselves, on the unmarked quizzes, which were a part of the taped discussions, and also on the graded quizzes at the end of the week.
2. Almost all students kept working on the tapes for the full four week period.
3. At least two students did go deeply into the branching activities.
4. At the termination of the experiment, when given a choice of homework, several of the experimental group elected to continue with the tapes as their homework.
5. The students' behavior, subjectively assessed, in the independent study atmosphere was gratifying.
6. Few negative reactions toward the program were noted, some students were overly enthusiastic about the program.
7. Some students seemed to become more aware of the existence of poetry outside the classroom.

The teacher concluded that demonstrating the possibilities for teaching improvement may well be the chief value of this experiment.

Language Arts - Reading

EDUCATIONAL TECHNOLOGY IN THE TEACHING OF READING IN THE SECOND GRADE - Geraldine Gettman, Woodrow, Colorado; 1963. 41 pp.

Purposes:
1. To present the basic reading lesson through the use of the tape recorder and earphones.
2. To free the teacher to give additional instruction, direction, and stimulation.

Procedure:

The teacher produced tape recordings of basic reading lessons and presented these recordings via earphones to small groups. This provided additional teacher time to work with other small groups and individuals according to their needs.

Results:
1. The experimental class showed slightly higher scores in achievement than did a comparable class at Woodlin School.
2. The children do respond to taped lessons and indications are that they learn as well as they do in ordinary classroom situations.
3. The taped lessons free the teacher from repetitious story presentations providing more time for individual and small group instruction.
4. All students could be actively involved in a learning situation.

INDIVIDUALIZED READING PROGRAM FOR GRADES TWO, FOUR AND FIVE, Marguerite Nichols, Florence Freeman, and Rhoda Rait, Collbran, Colorado; 1964. 41 pp.

Purposes:

1. To help pupils become skillful, self-reliant, and independent readers who will continue to enrich their understandings and satisfactions throughout their lives by reading.
2. To allow time for necessary individual instruction for students having special difficulties.
3. To use a quality and quantity of materials to interest and challenge all students.

Procedure:

The materials used in this reading program were SRA Reading Labs, basal readers, trade books, and Weekly Readers. The length of time devoted to reading was approximately ninety-five minutes per school day.

Students participated in drills, teacher-pupil conferences, tests, and observations. Each student was allowed to select from reading material consistent with ability and progress then report to the teacher for oral reading approximately two times per week. A class sharing period one day per week was held to share interesting parts of the books, i.e., dramatization, puppet shows, etc. A record was kept by each student showing what books he read, comments on the book, and new words encountered.

Methods of Evaluation:

Tests used were the Iowa Test of Basic Skills, Weekly Reader Diagnostic and Oral Tests, and SRA Reading Comprehension Tests.

The children's work habits, attitudes, and interests were observed and noted since these could not be tested.

Results:

The program has not been in effect long enough to collect substantial data. However, the following indications of the results are noted:

1. All children read more books on a wider variety of interest than in the traditional program.
2. The poorer readers achieved more satisfaction and enjoyment from books.
3. Anecdotal records show a noted improvement in silent and oral reading habits.
4. Children are capable of accepting responsibility for their progress.
5. Tests indicated a good growth in all reading skills and abilities for the students.
6. The attitude and enthusiasm of the children was greatly improved.

NONGRADED READING IN GRADES ONE AND TWO IN DeBEQUE PUBLIC SCHOOL - Leah Mahaney, DeBeque, Colorado; 1964. 16 pp.

Purpose:

To provide an individualized reading program through (a) multi-level materials, and (b) allowing for varying rates of progress.

Procedure:

The abilities and needs of the twenty children in the class were assessed by teacher observation and testing. Two sets of basic readers were used along with the many supplemental readers, SRA Labs, and trade books.

Detailed records of the pupil's progress were kept. This information is to be passed on and added to as the child progresses through school.

Teacher-pupil conferences were held to work on skills and discuss other reading problems. Parent-teacher conferences were held four times during the year.

Results:

1. Indications are that all children benefit from this project. Test results indicate a good growth.

2. Pupil interest did not lag during the school year.
3. The attitudes of the children improved as well as their ability to accept responsibility.

Language Arts - Spelling

THE INDIVIDUALIZATION OF THE TEACHING OF SPELLING IN THE ELEMENTARY SCHOOL - Betty L. Oba, Meeker, Colorado; 1964. 17 pp.

Purpose:

To individualize the spelling program through the use of specially prepared materials, technology, and modified classroom procedure.

Procedure:

Spelling lists were compiled, ranging from easy to hard, by levels. Children were allowed to progress through the lists at their own rate with periodic checks for achievement. They were paired with another of approximately the same level to enable them to help each other during the study and testing of the word lists. Unit tests were pre-taped and available for individual testing at the convenience of the student. The tape recorder and earphones enabled the testing to take place without interfering with the remainder of the class.

All students, approximately two hundred ninety students, grades two through six, participated in this project.

Results:

1. Most students achieved at a rate fairly consistent with their abilities.
2. A significant gain in the spelling accuracy of words most frequently used by children in their writing was shown by the poorer spellers.
3. Parent reaction to the approach was summarized as favorable.
4. Although teachers expressed some dissatisfaction with some aspects of the program, there was no desire to return to the traditional treatment of spelling.

A PLAN FOR INDIVIDUALIZED INSTRUCTION IN SPELLING FOR JUNIOR HIGH - Martha Moss, Collbran, Colorado; 1964. 24 pp.

Purpose:

1. To help all students learn how to spell as many words as they are capable of learning.
2. To create a new challenge in the spelling program by having the students work as individuals.
3. To change student attitude toward spelling.
4. To find more effective ways for the study of spelling words.

Procedure

The spelling abilities of the twenty-six seventh graders and the twenty-two eighth graders were determined by a teacher made pre-test, and from the scores on past achievement tests.

Sequential word lists were arranged so a student could progress steadily through the program. Students were paired by ability to facilitate the study of these word lists.

Testing was done on an individual basis, words not spelled correctly were carried over to the next list. Pre-tests of the lists were always given, and final testing of spelling lists were administered as the students were ready for them.

Results:

1. The indicated average gain in spelling for the seventh grade students according to the Iowa Test of Basic Skills was 2.35 years; for the eighth graders 1.9 years.
2. The most significant result of the project was in the change of attitude of the students. The attitude of the good spellers changed from boredom

to wanting to work, and the poor spellers changed from an attitude of hopelessness to one of hope.
3. The students developed better spelling habits and more responsibility for their own progress.
4. The role of the teacher changed from that of word pronouncer and study supervisor to one of organizer and coordinator of learning experiences for all students.

Mathematics

INDIVIDUALIZED INSTRUCTION IN FRESHMAN MATHEMATICS - Ann Brgoch, LaVeta, Colorado; 1963. 9 pp.

Purpose:

1. To free the students from the limitations placed upon them by the traditional classroom.
2. To help students develop better individual study habits, placing an emphasis on retention of skills rather than covering large quantities of subject matter.
3. To investigate the use of programed materials to allow students to progress at their own rate.
4. To provide an opportunity for the integration of traditional and modern math.

Procedure:

This experimental class in freshman mathematics was divided into two groups. The twelve more able students were placed in SRA Modern Mathematics, a programed material, while the six slower students were placed in a general mathematics group. Each student was allowed to progress at his own rate. Tests were given to each student when a unit of work was completed. A progress slip was handed into the teacher by each student at the end of each class. If a student needed help, he could indicate this on the progress slip. Supplemental material was given to the students from an algebra textbook.

Results:

1. The top students progressed far beyond where they would have been in a regular class situation.
2. Average students were at a normal point of progress at the end of the year.
3. The slower students received a good preparation in the general mathematics area.

Reactions to Project:

1. The overall enthusiasm of the group was outstanding.
2. Friction among students did not occur even though there was significant difference in individual advancement.
3. Difficulty in tests seemed to be the biggest complaint from students.
4. Trying to meet the demands of eighteen individuals was frustrating to the teacher.
5. Additional work on the part of the teacher was required for evaluation of students, individual help, and planning.
6. Personal satisfaction and improved student achievement compensated for the above.

A PLAN FOR INDIVIDUALIZING INSTRUCTION IN SEVENTH GRADE MATHEMATICS THROUGH THE USE OF MULTI-LEVEL TEXTBOOKS - Doris Gibbs, Ridgway, Colorado; 1964. 25 pp.

Purpose:

To use multi-level textbooks and grouping procedures to individualize the mathematics program at the seventh grade level.

Procedure:

The students were grouped in two sections--average and above, and below average groups. The higher ability group used the modern mathematics textbooks. The lower group used texts in which the approach was more traditional

Each student, with the assistance of the teacher, determined his personal mathematics goal for each six week term. Grading was based to some extent on whether or not the goal was reached.

Each week, students worked on an outside project ranging from the gathering of information to construction of models. A notebook for reporting outside readings and supplementary work was required of each student. A library of supplementary reading was available.

The California Arithmetic Test was used as a pre-and post-test.

Results:

1. Indications are that significant gains were realized by all students in arithmetic reasoning and fundamentals.
2. The teacher observed that students seemed to retain more of the reasoning skills and fundamentals of arithmetic than before.
3. This type of individualization worked very well with better students.
4. The teacher felt that this approach to instruction made her more alert to the needs of each student.

Music

AN ACCELERATED PLAN FOR HIGH SCHOOL GENERAL MUSIC CLASS DESIGNED TO BROADEN MUSIC HORIZONS WITHIN A LIMITED TIME SCHEDULE - Junior Karas, Woodrow, Colorado; 1963. 21 pp.

Purpose:

1. Provide significant learning experiences enabling students to improve their music achievement and their understanding and appreciation of many types of music.
2. Provide rhythm and pitch concepts as tools to independent singing.
3. Provide successful experiences that will effect student behavior and attitudes towards music.
4. Experiment and evaluate several non-traditional teaching methods.

Procedure:

Time allotted to the music class was fifteen minutes per day which influenced the planning and conducting of the class. Time had to be utilized for teaching and nothing else. Therefore, students were assigned to assist in certain routine duties.

The lectures and demonstrations had to be planned carefully enabling students to assimilate the material presented in a short time. Questions and discussions from the students had to be eliminated in this type of planning. Carefully planned lessons were presented on the overhead projector. Supplementary ditto outline and work sheets were available if needed. One class period in two weeks was used as a lecture period. The basic tools for music understanding, pitch, rhythm, harmony, and listening concepts were presented.

The schedule followed a two week sequence allowing the class an average of three tests each six weeks, three lectures each six weeks, and three reviews. The remaining twenty-one class periods were used for singing.

Materials were accumulated from various music history books. Discriminate facts from the "Baroque Period" through most of the "Romantic Period" were presented. Students became familar with fifteen to twenty composers, some of their compositions, and their main contribution to music.

Results:

1. All the students had an opportunity to participate in group aesthetic experiences and performed together four times as a choir. Much community praise was given the students for their efforts.
2. The choir placed superior in a competitive situation. Student attitudes toward music were definitely a factor toward success.
3. Scores on the Beach Music Test increased from 30 percent at the start of school to 72 percent at the end of school.

Social Studies

A PLAN FOR INDIVIDUALIZING INSTRUCTION FOR THE SENIOR GOVERNMENT CLASS THROUGH THE USE OF THE PROBLEM SOLVING UNITS - Norman E. Higgs, Silverton, Colorado; 1963. 14 pp.

Purpose:

1. To use a method of teaching that will more effectively meet individual student needs.
2. To encourage critical thinking on the part of the students in arriving at conclusions to a given problem situation.

Procedure:

The teacher introduces selected units by use of film, filmstrips, guest speakers, and by class discussion.

Unit study was divided into three phases: (1) a period of investigation for each individual student, (2) a time of group consultation or discussion, and (3) determining a solution to each individual problem and an evaluation.

An evaluation of the methods used in each unit was made by the teacher who acted as counselor and through student-teacher conferences to the ten pupils in his class.

Results:

1. The progress and interest of the bright and above average students indicated this was an effective method for these students.
2. The below average students found the problem solving method difficult to use.
3. The slow students could not use the problem solving method. However, they did maintain an interest in the class throughout the year, something that had not been accomplished with traditionally textbook taught classes before.
4. All students displayed a positive attitude toward this course of government.

AN INDIVIDUAL APPROACH TO THE TEACHING OF UNITED STATES HISTORY - Charles Holmes, Meeker, Colorado; 1964. 12 pp.

Purposes:

1. To develop an ability to use learning media other than the textbook to study a particular section of history.
2. To develop skill in the use of certain equipment that will enable the student to study by himself.
3. To develop desirable study habits, behavior patterns, and attitudes.
4. To develop an ability to distinguish between fact and opinion.

Procedure:

This experimental class makes use of the large group, small group, and independent study techniques.

All students are brought together at the beginning of a unit of work. As soon as a student, or group of students, is able to master the basic material, they are allowed to branch out into supplementary material.

The teacher selects tapes, filmstrips, and records for student use that are closely correlated with what is being studied. Many paperback books were available to students for enrichment and individual activity.

Results:

1. The students assumed a greater responsibility for their learning activities.
2. Most of the students used good study habits and made good use of their time.
3. The students had little difficulty in setting up and using equipment.
4. Most of the students completed the minimum outside reading of four historical books, novels, and biographies.
5. The student attitude toward this class was encouraging.
6. Progress of students as indicated by teacher made tests was satisfactory.
7. The class experienced an average growth of thirteen months as measured by two Stanford Social Studies Achievement Tests.

Science

A PLAN FOR INDIVIDUALIZING INSTRUCTION IN BIOLOGY THROUGH STUDENT INITIATED EXPERIMENTS - Deane L. Munger, Ridgway, Colorado; 1963. 13 pp.

Purpose:

1. To teach biology through student initiated experiments.
2. To provide for the development of critical thinking and scientific processes by the student.

Procedure:

Orientation activities to the year's work included (1) description of course procedures, (2) a discussion of the scientific method, and (3) an opportunity to become acquainted with laboratory apparatus and materials. Field trips were taken to point out areas of study and for collection of materials. Placed at the students' disposal were reference materials, which included the basic textbook, plus lists of possible experimental areas.

Teacher-student conferences were held to discuss his proposed plan of action. At the completion of the project, another conference was held to determine if the desired objectives were achieved.

At group meetings held during the year, attempts were made to relate the students findings to broad interpretive understandings in biology.

Methods of Evaluation:

In addition to the teacher's observations, various teacher-made tests were given to see if the students could organize procedures for carrying out experiments, organize data, facts, concepts, and understandings. Standardized tests used were SCAT and the Iowa Test of Basic Skills.

Results:

1. The average test scores of this class were lower than that of traditionally taught previous classes.
2. According to objective teacher-made tests, the students:
   a. did not get as much subject matter and factual information as in a conventional biology course
   b. did have a greater knowledge of scientific thinking and processes.
3. Student and parent attitudes toward science were improved.
4. The teacher believes that procedural knowledge will be of greater benefit than isolated facts.

INDEPENDENT STUDY - ADVANCED SCIENCE COURSE - Marshall Steen, Meeker, Colorado; 1963. 9 pp

Purpose:

1. To give top ranking students that had taken the biology, chemistry, and physics sequences an opportunity to continue studies in the sciences.
2. To have the students assume more individual responsibility for their academic achievements.
3. To allow the students to progress at their own rate.

Procedure:

The course is designed as an individual research course. At the beginning of the year, a teacher-student conference is held to determine the area of study. A tentative schedule is laid out for the entire year. The teacher acts in a supervisory and advisory capacity.

The student chooses the hour in the day best suited to his class schedule. They are allowed to move freely between the library and laboratory. Subject areas pursued included meteorology, electricity and electronics.

The individual research projects were written up as English assignments. The English instructor provided the necessary assistance in the writing procedures.

To supplement research materials, a library exchange was established to make use of the resources of the University of Colorado and the Air Force Academy.

The course has been offered for three years with an average enrollment of four students.

Results:

1. Indications are that this course was of benefit to the students involved as indicated by standard test scores, and evidenced from research papers.
2. The teacher found it possible to schedule students during any free periods the students may have in the day.
3. Because of the class procedure, students must be mature and highly motivated.
4. This type of course makes it possible to give advanced training to students without expending much more teacher time or additional money.
5. The instructor is convinced that this program has high merit and is filling a need in Meeker High School.

Motion Pictures

"PATHS TO LEARNING - INNOVATION IN THE SMALL SCHOOL" - Colorado State Department of Education, Denver, Colorado; 1964. 16 mm, 20 minute, color, sound. (Available November 15, 1964)

This film presents a number of classroom situations from those schools participating in the Colorado WSSSP. The documentation illustrates a variety of ways in which individualization of instruction can take place. Materials and equipment shown include: the use of tape recorder, filmstrip viewers, 16mm projectors, overhead projectors, paperback books, amplified telephone, and programed materials.

PHYSICAL EDUCATION FOR THE SMALL HIGH SCHOOL - William Smith, Crested Butte, Colorado; 1964. 20 minute, color, sound. (Available February 1, 1965)

This film shows activity suited to a small school physical education program. It illustrates physical education class organization, and the skills taught in the Crested Butte physical education program.

Other

DEMONSTRATION KIT OF A-V MATERIAL DEVELOPED FOR A MUSIC PROGRAM--GRADES ONE THROUGH TWELVE - Junior Karas, Woodrow, Colorado; 1964.

Purpose:

1. To show examples of A-V materials and technology used in a general music class.
2. Indicates the procedures used to make the materials.

The materials in this kit were developed as a result of needing to provide a general music program within a very limited time schedule. (See documentation--General Music Class, Junior Karas, Woodlin High School, 1963).